

**DETAILED ACTION**

Amendments made 1/18/10 have been entered.  
Claims 16-19 are pending.

Note: The specification, page 3 recites density measurements in units of grams per centimeter squared; this is believed to be a typographical error as density has a unit of mass per unit volume.

***Claim Rejections - 35 USC § 112***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 112<sup>nd</sup> paragraph rejection of claims 2-7, 11, and 13-15 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn in light of applicant's amendments made January 18, 2010.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 103(a) rejection of claims 2-7, 11, and 13-15 as being unpatentable over Murphy et al (US 5853788) in view of Perry et al (ed.) (Perry's Chemical Engineers' Handbook 7<sup>th</sup> Edition pages 20-82 through 20-84) has been withdrawn in light of applicant's amendments made January 18, 2010.

The new rejections stand as necessitated by applicant's amendments.

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al (US 5,853,788) in view of the combination of Perry et al (ed.) (Perry's Chemical Engineers' Handbook 7<sup>th</sup> Edition pages 20-82 through 20-84) and Bolt (US 3,607,299).

Murphy et al (Murphy) teaches a process for the preparation of a coffee product comprising the steps of grinding a roasted coffee (column 5 lines 58-63), externally

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cooling the coffee prior to or during compressing (column 7 lines 40-48), compressing the coffee in a pellet mill with a roller to form a compressed body of coffee (column 6 all), crushing the compressed coffee to form a particulate product (column 9 lines 14-17), and packaging the particulate coffee (column 8 lines 28-32). Murphy teaches that the coffee product is brewed (column 9 lines 35 and 36). Murphy teaches that the press is a roller press as defined by applicant (applicant's specification page 2 lines 18-20) by teachings that apparatus compacts particulate materials into shaped products by compression against at least one roller (Murphy column 6 all). Murphy teaches that the tap density, i.e. the density of the agglomerated product, of the ground compressed tablet is 0.5-0.7gm/cc (column 7 lines 58-60). Regarding the particulate size of the coffee as recited in claim 19, as Murphy teaches that the volumetric particle size of the particulate coffee is from 270-1100um and the median volumetric size of the particulate is from 270-1100um (abstract), one of ordinary skill in the art would expect that the volume mean diameter also be within the range of 270-1100um.

Murphy is silent to the roller press as comprising two pocketed rollers with complementary surface pockets, to the coffee as in a brewing capsule, wherein the compressed coffee as placed in a brewing capsule, sealing the capsule edges, and then crushing the coffee in the capsule as recited in claim 16, and to the density of the compressed coffee as greater than 0.95g/cc as recited in claim 18.

Perry et al (Perry) teaches that the roller press and pellet mill are both used to compress particulate materials together and form pellets (page 20-82 and 20-83). Perry teaches that the roller press can produce large quantities of materials at a low cost (page 20-82). Perry teaches that the roller press had two rollers with pockets or indentations in the roller surface (page 20-82). Perry teaches that the pockets and/or indentations form the shape of the pellets (page 20-82).

Bolt teaches that brewing capsules were well known and common place (Column 1 lines 5-10). Bolt teaches a method of making a highly extractable disposable coffee pouch containing particulate compressed coffee resulting in little or no pot sediment and high consumer acceptance (Column 2 lines 34-38). Bolt teaches compressing roast ground coffee, encasing the agglomerated coffee in a water permeable fabric filter, i.e. a

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brewing capsule, and disintegrating the agglomerated coffee to provide particulate compressed coffee within the pouch (Column 2 lines 44-55). Bolt teaches that it is important that the coffee be compressed above 3000psig in order to cause a non-weak brew and below 6000psig so that the compressed coffee can later be broken apart (Column 2 line 68 through Column 3 line 24). Bolt teaches that the coffee is compressed, placed in a package, the package is sealed, and then the compressed coffee is disintegrated (Column 3 line 53 through Column 5 line 69). Bolt teaches that the compressed coffee is to be packaged before disintegration in order to provide for increased quantity of coffee within the package (Column 3 lines 4-7, Column 5 lines 28-69). Bolt teaches that the brewing capsule is porous, but with holes that are large enough to allow for brewing yet small enough to prevent sedimentation in the brewed coffee (Column 4 lines 54-75).

Regarding using a roller press comprising two pocketed rollers with complementary surface pockets, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a roller press comprising two rollers as the pellet mill as taught by Murphy in order to process large quantities of material at a low cost as taught by Perry. As Perry teaches that the pockets and/or indentations form the shape of the pellets, it would have been further obvious to one of ordinary skill in the art at the time the invention was made to use profiled or pocketed rollers or a combination of both depending on the shape and texture of the final product desired. For example, one would have been motivated to use two pocketed rollers to form a smoothly rounded final product. To do so would be to use a known machine for its known and intended function.

Regarding the coffee as in a brewing capsule, it would have been obvious to one of ordinary skill in the art for the packaged coffee product for brewing as taught by Murphy to be packaged in a brewing capsule, so that the product could be easily brewed from the package. Murphy teaches that brewing capsule sachets (i.e. porous tea bag structures) were known and used in the art (Column 3 lines 9-12), Bolt teaches that such capsules were known and commonplace (Column 1 lines 5-10) and the use of

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a conventional package, such as a brewing capsule, for its intended function would have been obvious and within the routine determination of one of ordinary skill in the art.

Regarding the compressed coffee as placed in a brewing capsule, sealing the capsule edges, and then crushing the coffee in the capsule, as stated above it would have been obvious to one of ordinary skill in the art to package the coffee product as taught by Murphy in a brewing capsule sachet. It would have been further obvious to one of ordinary skill in the art at the time the invention was made for the coffee to be compressed at 3000-6000psig, for the compressed coffee to be placed in the brewing capsule, for the brewing capsule to be sealed, and then for the compressed coffee to be crushed as taught by Bolt. One would have been motivated to do so in order to form a brewing capsule with a maximum amount of compressed coffee particulates and which had high consumer acceptance as taught by Bolt. Furthermore, one would have been further motivated for the coffee to be enclosed in the brewing capsule sachet during crushing so that the crushed particulates would not disperse everywhere thus allowing for increased product recovery (the particulates would remain in the sachet and would not disperse into the atmosphere during compression) and easier clean up (all of the particulates would remain in the sachet and not on the compression equipment). To enclose a compressed body to be crushed in a sachet would be common sense and routine determination of one of ordinary skill in the art.

Regarding the density of the compressed coffee as recited in claim 18, since Murphy teaches of substantially the same processes of producing the pressed coffee as instantly claimed, and since Murphy teaches that the compressed coffee crushed has substantially the same particle size as the instantly claimed crushed compressed coffee, one of ordinary skill in the art at the time the invention was made would expect that the compressed coffee taught by Murphy inherently have the same properties, including density, as instantly claimed. Additionally, since it would have been obvious for the coffee to be compressed to 3000-6000psig (about 20,700-41,400 kPa) in view of Bolt and applicant discloses that a pressure of greater than about 60kPa results in the instantly claimed density (Specification Page 2 line 31 through page 3 line 4), one of ordinary skill in the art at the time the invention was made would further expect that the

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compressed coffee taught by Murphy in view of Bolt inherently have the same properties, including density, as instantly claimed. Even further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the density of the compressed coffee when it was desired to keep the compressed pellet the same size, but to vary the concentration of coffee desired in each of the compressed pieces. One would have been motivated for the compressed coffee to remain the same size so that the same forming equipment would be acceptable; One would have been motivated to increase the density in order to form a lighter intensity coffee tablet, alternatively, one would have been motivated to decrease the density in order to form a more intense coffee tablet. To vary the density of the coffee tablet would be common sense and routine determination based upon the desired amount of coffee in the compressed form.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al (US 5,853,788) in view of the combination of Perry et al (ed.) (Perry's Chemical Engineers' Handbook 7<sup>th</sup> Edition pages 20-82 through 20-84) and Bolt (US 3,607,299), further in view of Lombana et al (US 3,652,293).

Murphy teaches a process for the preparation of a coffee product as discussed above. Additionally, as discussed above, Murphy is silent to the density of the compressed coffee as greater than 0.95g/cc as recited in claim 18, however, one of ordinary skill in the art would expect that the compressed body of Murphy and/or the compressed body of Murphy in view of Bolt have substantially the same density as instantly claimed and furthermore, to vary the density of the coffee tablet would be common sense and routine determination based upon the desired amount of coffee in the compressed form. Lombana et al (Lombana) teaches that high density compressed coffee has a density of about 0.8-1.7g/cc (Column 2 lines 61-75, Column 4 lines 33-35, and Column 5 lines 54-57). It would have been further obvious to one of ordinary skill in the art for the density of the compressed coffee to be about 1.7g/cc in order to form a highly dense coffee product as taught by Murphy in view of Lombana.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY BEKKER whose telephone number is (571)272-2739. The examiner can normally be reached on Monday through Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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